WO 2005/085150 PCT/GB2005/000782

11

Claims:

1. A method of manufacturing a powder-coated glass product wherein a thermosetting powder is deposited on a surface of a glass substrate and the powder is cured to form a coating on the surface by heat applied to the powder through the substrate.

- 2. A method according to Claim 1 wherein the glass substrate is heated prior to deposition of the powder so that the powder adheres to the glass surface as it is deposited.
- 3. A method according to Claim 1 or Claim 2 wherein adhesion of the coating to the glass surface is enhanced by an adhesion promoter included within the powder.
- 4. A method according to Claim 1 or Claim 2 wherein the glass surface is treated with an adhesion promoter prior to deposition of the powder on the surface.
- 5. A method according to any one of Claims 1 to 4 wherein the heat is applied to the powder through the substrate from a source of infra-red radiation.
- 6. A method according to Claim 5 wherein the source of infra-red radiation is mounted within a box having a reflective internal surface.
- 7. A method according to Claim 6 wherein heat is transmitted to the glass substrate mainly by conduction from the box, and to the powder mainly by the radiation through the substrate.
- 8. A method according to any one of Claims 5 to 7 wherein the frequency of the infra-red radiation is

WO 2005/085150 PCT/GB2005/000782

regulated from a higher frequency to a lower frequency as the powder progresses from melt towards cure.

- 9. A method according to any one of Claims 1 to 8 wherein metal foil is adhered to a back surface of the coating for reduction of thermal stress in the glass substrate, the metal foil extending inwardly from the edges of the coating across the back surface by a distance within the range of 100 150 mm.
- 10. A method according to Claim 9 wherein the distance is substantially 125 mm.
- 11. A method according to Claim 9 or Claim 10 wherein the thickness of the metal foil is within the range 75 150 $\mu \rm m$.
- 12. A method according to Claim 11 wherein the thickness is substantially 80 $\mu \mathrm{m}.$
- 13. A method according to any one of claims 1 to 12 wherein two thermosetting powders are deposited one after the other on the substrate for forming a first coating on the substrate-surface and a second coating on the first coating, and heat to cure both powders into the first and second coatings is applied through the substrate.
- 14. A method according to Claim 13 wherein metal foil is adhered to a back surface of the second coating for reduction of thermal stress in the glass substrate, the metal foil extending inwardly from the edges of the second coating across its back surface by a distance within the range of 100 150 mm.
- 15. A glass panel manufactured by a method according to any one of Claims 1 to 14.

WO 2005/085150 PCT/GB2005/000782

13

- 16. A powder-coated glass product wherein a glass substrate is backed by a powder coating and metal foil is bonded to the back surface of the coating to extend inwardly from the edges of the product across the back surface by a distance within the range of 100 150 mm for reduction of thermal stress in the glass substrate.
- 17. A powder-coated glass product according to Claim 16 wherein the distance is substantially 125 mm.
- 18. A powder-coated glass product according to Claim 16 or Claim 17 wherein the thickness of the metal foil is within the range 75 150 μm .
- 19. A powder-coated glass product according to Claim 18 wherein the thickness is substantially 80 μm .
- 20. A powder-coated glass product according to any one of Claims 16 to 19 wherein the coating is an epoxy-resin coating.
- 21. A method of manufacturing a powder-coated glass panel substantially as hereinbefore described with reference to Figures 1 and 2 of the accompanying drawings.
- 22. A method according to Claim 21 using an oven substantially as hereinbefore described with reference to Figure 3 of the accompanying drawings.
- 23. A powder-coated glass panel substantially as hereinbefore described with reference to Figures 1 and 2 of the accompanying drawings.
- 24. A double-glazed spandrel unit substantially as hereinbefore described with reference to Figures 4 and 5 of the accompanying drawings.